United States Court of Appeals

for the Second Circuit

PETITION FOR REHEARING EN BANC

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75-7362

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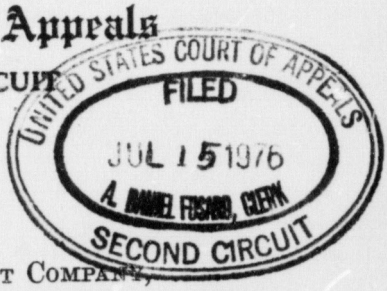

Docket No. 75-7362

PERMA RESEARCH & DEVELOPMENT COMPANY,
Plaintiff-Appellee,

v.

THE SINGER COMPANY,
Defendant-Appellant.

Bpls

ON APPEAL FROM THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

PETITION FOR REHEARING OR FOR REHEARING IN BANC

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United States Court of Appeals
FOR THE SECOND CIRCUIT

Docket No. 75-7362

PERMA RESEARCH & DEVELOPMENT COMPANY,
Plaintiff-Appellee,

v.

THE SINGER COMPANY,
Defendant-Appellant.

PETITION FOR REHEARING OR FOR REHEARING IN BANC

The Singer Company (hereinafter "Singer"), appellant and petitioner herein, respectfully petitions this Court for a rehearing pursuant to Rule 40, Fed. R. App. P., and suggests, pursuant to Rule 35, Fed. R. App. P., that this appeal presents questions of exceptional importance and that the decision of this Court filed on July 1, 1976* is inconsistent with its prior decisions and should therefore be reheard by the Court in banc to maintain uniformity of its decisions.

STATEMENT

In an opinion filed July 1, 1976 by Mr. Justice Clark and concurred in by Judge Timbers, the majority of a panel

* *Perma Research and Development Company* v. *The Singer Company*, Nos. 75-7362, 75-7405 (2d Cir., filed July 1, 1976) [majority opinion hereinafter cited as "Op."; dissenting opinion hereinafter cited as "D. Op."].

of this Circuit affirmed the judgment of the District Court holding Singer liable for $6,905,376.69 in damages for breach of an implied obligation to perfect and market an anti-skid device invented by plaintiff. Judge Van Graafeiland dissented with separate opinion.

The holding of the majority which squarely conflicts with a prior decision of this Court is that computer simulations created specifically for trial may be received in evidence despite the continuing refusal of the proponent to disclose the underlying computer program. (Op. at 4651-52). In *United States* v. *Dioguardi,* 428 F.2d 1033 (2d Cir.), *cert. denied,* 400 U.S. 825 (1970), this Court in an opinion by Judge Friendly undertook to place proponents of computerized evidence "on the clearest possible notice of [their] obligation" to disclose the computer program used in the creation of such evidence for trial and to make "the program available for defense scrutiny and use on cross-examination if desired." 428 F.2d at 1038.

The Court's opinion in the case at bar, however, states that while it "might have been better practice" to disclose the computer programs and the underlying data employed in the computer simulations to the adverse party prior to trial, "delivery of the actual computer programs would not appear to serve much purpose apart from delivery of the data and scientific formulae employed" (Op. at 4651, 4652). On this basis, the Court's opinion holds that Singer, who had admittedly never been permitted to view or study the computer programs, "has not shown that it did not have an adequate basis on which to cross-examine plaintiff's experts." (Op. at 4652).

In his dissenting opinion, Judge Van Graafeiland notes that "plaintiff's entire case rests upon the accuracy of its computerized calculations" (D. Op. at 4675). Citing *United*

States v. *Dioguardi*, the dissent found that where "a computer is programmed to produce information specifically for purposes of litigation . . . a court should not permit a witness to state the results of a computer's operations without having the program available for the scrutiny of opposing counsel and his use on cross-examination." (D. Op. at 4673-74). Judge Van Graafeiland found that meaningful cross-examination of a witness stating the results of a computer's operation was not possible without disclosure of the program (D. Op. at 4671, 4675, 4675 n.17) and adds that the computer program ought to be disclosed (in advance of trial) to provide the adverse party with an opportunity to examine, test and understand the program prior to undertaking cross-examination (D. Op. at 4674). "Because the record in this case contains no information about the programming relied upon by plaintiff's experts" (D. Op. at 4675), the results of the computer simulations were untested by meaningful cross-examination and are therefore "hearsay and conclusory" (D. Op. at 4673).

Noting that "[j]udicial decisions to date have largely skirted the edge of the problem" of the dangers inherent in computerized evidence created specifically for purposes of litigation (D. Op. at 4673), Judge Van Graafeiland urges that "it is of the utmost importance that appropriate standards be set for the introduction of computerized evidence" as courts are drawn into an era when increasing amounts of evidence generated by computer may be anticipated (D. Op. at 4671-72).

ARGUMENT

Reconsideration Is Necessary to Maintain Uniformity of Decisions of this Court

This appeal represents the second occasion on which this Court has been presented with the question of whether computerized evidence created specifically for purposes of litigation is admissible in evidence without delivery of the computer program to the adverse party. On the first occasion, this Court placed proponents of computerized evidence on "the clearest possible notice of [their] obligation to do this" and make "the program available for defense scrutiny and use on cross-examination if desired." *United States* v. *Dioguardi,* 428 F.2d at 1038. On this appeal, with neither mention nor disavowal of *United States* v. *Dioguardi,* the majority has come to the opposite conclusion.

This Court has previously found that computer programs are "needed for cross-examination of computer witnesses." *United States* v. *Dioguardi,* 428 F.2d at 1038. Despite the undisputed non-delivery of the computer program, the majority held that Singer had not met its burden of showing that it did not have an adequate basis upon which to cross-examine computer witnesses. It is respectfully submitted that this holding is inconsistent with the decision in *United States* v. *Dioguardi.*

In *United States* v. *Dioguardi,* the government introduced into evidence a computer printout showing the dates on which the inventory of a bankrupt company had been fraudulently depleted. The defense objected to admission of this evidence both at trial and on appeal on the ground that the computer program should have been produced under the Jencks Act, 18 U.S.C. §3500; a claim found by this Court to be "wholly without merit." 428 F.2d at 1038. This Court did, however, consider defendants' "one meritorious point . . ., namely *'that without the "program" it [the defense] could not properly test the validity of the*

results of the computer nor could it properly cross-examine Mr. Row'" (the witness stating the results of the computer's operations). 428 F.2d at 1038 (italics ours). On this point, this Court stated:

> "We fully agree that the defendants were entitled to know what operations the computer had been instructed to perform and to have the precise instruction that had been given. It is quite incomprehensible that the prosecution should tender a witness to state the results of a computer's operations without having the program available for defense scrutiny and use on cross-examination if desired. We place the Government on the clearest possible notice of its obligation to do this and also of the great desirability of making the program and other materials needed for cross-examination of computer witnesses, such as flow-charts used in the preparation of programs, available to the defense a reasonable time before trial. See *United States* v. *Kelly*, 420 F.2d 26 (2 Cir. 1969)." *United States* v. *Dioguardi*, 428 F.2d at 1038.

Nevertheless, the judgment in *United States* v. *Dioguardi* was affirmed, principally on the ground that the testimony based upon the computer calculations "was a quite unnecessary frill," 428 F.2d at 1039, for "there was no real dispute on the issue of the use which was affected by the accuracy of the computer." 428 F.2d at 1040 (concurring opinion).

In the case at bar, the testimony based upon the computerized evidence was no "unnecessary frill." The District Judge made his findings of perfectibility and marketability expressly upon the testimony of plaintiff's expert which, in turn, was expressly based upon the computer simulations (D. Op. at 4664; 402 F. Supp. 881, 897 (S.D.N.Y. 1975)). The issue addressed by plaintiff's computer simulations, the perfectibility of the Perma anti-skid device, was hotly disputed and determinative of both liability and damages. Judge Van Graafeiland found that "plaintiff's entire case

rests upon the accuracy of its computerized simulations." (D. Op. at 4675). Accordingly, the decision on this appeal is in conflict with *United States* v. *Dioguardi*.

The Decision Is Predicated Upon a Misconception of the Nature of Computer Programs

The Court's finding on this appeal that "Singer has not shown that it did not have an adequate basis on which to cross-examine plaintiff's experts" is apparently based upon the stated premise that "delivery of the actual computer programs would not appear to serve much purpose apart from delivery of the data and scientific formulae employed" (Op. at 4652). This, it is submitted, reflects a serious misunderstanding of the nature of a computer program and the role that it plays in computer simulations.

Computer programs have been described by Chief Judge Brown of the Fifth Circuit as:

> ". . . the intricate step-by-step directions given to the computer concerning everything the computer is expected to do with respect to the data fed into it." Brown, *Electronic Brains and the Legal Mind: Computing the Data Computer's Collision With Law*, 71 YALE L.J. 239, 243 (1961).

The writing of a computer program is an exercise in logic which "more than any other component of the computer system, reflects the skills and creativity of an individual or individuals." Roberts, *A Practitioner's Primer on Computer-Generated Evidence*, 41 U. CHI. L. REV. 254, 260 (1974) [hereinafter cited as *"Computer-Generated Evidence"*]. As computer programs are written by humans, so are they subject to human error. And an error in the computer program which directs the hardware in its analysis of the data will almost certainly create error in the result.

> "[*T*]*he computer can only process the data as it is told to process the data;* if there is a deficiency in

> the manner in which the computer is told to process the data, the output will be in error." *Computer-Generated Evidence,* 41 U. CHI. L. REV. at 263 (italics in original).

"[I]t usually is not possible to determine whether the computer is properly programmed by examining the answers obtained." *Reeves Instrument Corp.* v. *Beckman Instruments, Inc.*, 444 F.2d 263, 264 (9th Cir.), *cert. denied,* 404 U.S. 951 (1971). It is certainly not possible to do so in this case where plaintiff's unvalidated* computer simulations were entirely theoretical representations of a "perfected" anti-skid device incorporating hypothetical engineering changes known only to plaintiff's experts (D. Op. at 4666-67). The results of plaintiff's computer simulations, like the program which created them, are therefore nothing but "hypothetical, untested and unproven" (D. Op. at 4667) exercises in "'an area of pure physics and delightful math'" (D. Op. at 4666 *quoting* the District Judge). Without access to the theoretical simplifications and assumptions (D. Op. at 4665-66) contained in the computer program which directed the hardware in its analysis of the data, Singer "could not properly test the validity of the results of the computer nor could it properly cross-examine" plaintiff's experts. *United States* v. *Dioguardi,* 428 F.2d at 1038. The need for disclosure of computer programs to adverse parties:

> ". . . is critical because the computer can only do what the programs tell it to do. If the programs are in error, incomplete, not designed to process all of the data that might be generated, or lacking appropriate verification and test procedures, *errors in the output will result.*" *Computer-Generated Evidence,* 41 U. CHI. L. REV. at 269 (italics ours).

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* Under generally accepted practice, computer simulations are not relied upon until they have been "validated" or checked for accuracy by comparing the results of the simulation against the real-world performance of a prototype (D. Op. at 4666).

A "simulation with an incorrect program is 'worse than worthless'" (D. Op. at 4674-75 *quoting* Favret, Introduction to Digital Computer Applications 122 (1965)) as "[t]he machine basically can do only what humans instruct it to do." Federal Judicial Center, *Manual for Complex Litigation* § 2.717 (1973) [hereinafter cited as "*Manual for Complex Litigation*"]. "Because the record in this case contains no information about the programming relied upon by plaintiff's experts, neither we [the Court] nor defense counsel have any way of knowing whether it was complete or accurate." (D. Op. at 4675).

The Question Presented Is of Exceptional Importance

Although computers have had wide application in science and industry, courts are just beginning to feel the impact of this technological revolution.

> "The rapid rate of technological development and the expanding range of applications of computers suggest that the problems are still in their infancy, and that the importance of computer based evidence can only increase with the passage of time." *Manual for Complex Litigation* § 2.714.

The use of computers for purposes of litigation "presents a real danger of being the vehicle of introducing erroneous, misleading or unreliable evidence" and courts must exercise special care concerning the admission of such evidence. *Computer-Generated Evidence*, 41 U. Chi. L. Rev. at 255-56; *Manual for Complex Litigation* §§ 2.70, 2.714. It has been stated that "[w]ithin this area, the protection against unreliable evidence afforded by the traditional orthodox hearsay rule can be supplied only by full disclosure [of the program employed in evaluating the data] to the adverse party." *Manual for Complex Litigation* § 3.50.

In ruling on this Petition, this Court will necessarily determine whether its decision on this appeal or that enunciated in *United States* v. *Dioguardi* will be followed

in this and all subsequent litigations involving the admissibility of computerized evidence. The importance of this determination is heightened by the fact that this appeal and *United States* v. *Dioguardi* are apparently the only reported judicial decisions concerning the admissibility of computerized evidence created specifically for trial and not qualifying for exemption from the hearsay rule under the Federal Business Records Act. 28 U.S.C. § 1732.

It is submitted that Judge Van Graafeiland is correct in urging that "appropriate standards be set for the introduction of computerized evidence." (D. Op. at 4671-72). "[T]he importance of computer based evidence can only increase with the passage of time" and "[t]he rules of evidence which were evolved in less technologically advanced times must be adapted to meet the evidentiary problems . . . posed by these developments." *Manual for Complex Litigation* § 2.714. In deciding this appeal, this Court is establishing a significant precedent which will govern the admission of ever increasing amounts of computerized evidence.

This Appeal Involves Two Other Questions of Exceptional Importance

As Judge Van Graafeiland states in dissent, "the District Judge decided that the defendant had an implied obligation to perfect plaintiff's non-skid device before he heard one word of testimony" (D. Op. at 4655). It is not disputed that implied obligations are created by the intention of the parties as evidenced by their contemporaneous words and acts and surrounding circumstances. Although such an intent can only be established by evidentiary proof at trial, the issue of the existence and scope of the implied obligation upon which this judgment rests (Op. at 4649-51) was established by pre-trial order (D. Op. at 4655). The entry of that order relieved plaintiff from its burden of proving that there was an implied obligation and the District

Court's adherence to it deprived Singer of the opportuni to offer evidence showing that no such obligation was intended (D. Op. at 4556-57). It is respectfully submitted, as Judge Van Graafeiland's dissent makes clear, that the majority opinion approves a procedure and a result inconsistent with both justice and precedent (D. Op. at 4654-64).

As Judge Van Graafeiland also states, the majority affirms a seven million dollar judgment wherein "the District Judge computed damages from the hypothetical income of a hypothetical anti-skid device to be sold at a hypothetical price in a hypothetical market" (D. Op. at 4676). Nearly one half of this substantial award is based upon hypothetical sales in a market (the OEM market) in which even plaintiff did not contend that damages were awardable. It is respectfully submitted that even if lost profits are the proper measure of damages in this case (*see* D. Op. at 4676-78), the approval of speculative damages of this nature on this appeal in an era of dramatically increasing damage awards raises a question of exceptional importance warranting rehearing or rehearing in banc.

CONCLUSION

For all of the reasons set forth above and in our papers previously submitted and on file with this Court, Singer's Petition for Rehearing or Rehearing in banc should be granted.

Respectfully submitted,

WINTHROP, STIMSON, PUTNAM & ROBERTS

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Dated: July 15, 1976

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Date 7/15/16

Time 3:08 pm CW